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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CAO, DIEM K

ART UNIT PAPER NUMBER

2126

DATE MAILED: 08/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/504,531

Applicant(s)

CARON ET AL.

Examiner

Diem K Cao

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-37 and 39-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-37 and 39-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 11-37 and 39-55 remain in the application. Applicant has amended claims 11, 15-16, 20, 25, 27-28, 30-31, 36, 44, 48-49, and 51-55.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-14, 16-19, 48-51, and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piskiel et al. (U.S. 5,893,911) in view of Feridun et al. (U.S. 6,336,139 B1) further in view of Shaw et al. (U.S. 6,282,565 B1).
4. **As to claim 11**, Piskiel teaches receiving a message in a queue (a publishing application ... queue 212; col. 7, lines 45-64), wherein the queue is associated with at least one rule (rules based message distribution 204, rule bases, subscription rules; col. 7, line 45 - col. 8, line 67) and each rule at least specifies a condition (rule clause; col. 8, line 51 - col. 9, line 34) and specifies an action (a single published message instance ... perform a specific action; col. 9, lines 35-46), and the action specified by each rule is capable of being different for each rule (a single message instance may trigger several rules, each of which is defined to perform a specific action; col. 9, lines 35-65), checking whether the condition specified by the at least one rule of the trigger associated with the queue is satisfied by the message (when the identified ... evaluate to TRUE;

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col. 9, lines 1-34), and upon determining that the condition of the rule is satisfied by the message, performing the action of the rule (the particular action ... to be performed; col. 9, 1-34).

5. However, Piskiel does not teach the queue is associated with an ordered plurality of triggers, and each trigger grouping the at least one rule. Feridun teaches the queue is associated with at least one trigger (input queue, correlation rule; col. 8, line 15 – col. 9, line 57 and a correlation rule is implemented as a Java bean wrapped around a rule object; col. 11, lines 32-37) and each trigger grouping the at least one rule (a correlation rule is implemented as a Java bean wrapped around a rule object; col. 11, lines 32-37). Shaw teaches the rules associated with a queue are in ordered (Action priority is determined by the rule's order in the rule list; col. 6, lines 15-17).

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Piskiel, Feridun and Shaw because it improves the flexible of the system by dynamically deployed into a distributed computing environment and the actions specified by the rules are not conflict with each other.

7. **As to claim 12**, Piskiel teaches performing the action specified by the rule comprises activating each of at least one module referenced by the rule (a single published message ... performed; col. 9, lines 35-67).

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8. **As to claim 13**, Piskiel teaches (col. 9, line 62 – col. 10, line 15) each module comprises one of a software component (logging or recording information about the transaction in a file or database, address of a desired target computing process) and an executable program file (initiating execution of a new application, name of a process).

9. **As to claim 14**, Piskiel teaches activating each of at least one module referenced by the rule comprises passing the message to the module (send a transaction message to a subscribing process/application program; col. 9, lines 35-65).

10. **As to claim 16**, Piskiel as modified teaches the at least one rule comprises a short-circuit rule, such that satisfaction by the message received in the queue of the condition specified by the rule causes checking for satisfaction of the condition of any non-checked rules of the at least one rule grouped by the trigger associated with the queue to stop (the rule clause is ignored for ... table entry; col. 8, lines 51-67).

11. **As to claim 17**, Piskiel does not teach the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue. Feridun teaches the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue (consume the event; col. 12, lines 10-20).

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12. **As to claim 18**, Piskiel teaches checking is performed in a serial manner (Element 800 is first ... published message; col. 16, lines 27 - 67).

13. **As to claim 19**, Piskiel does not teach checking is performed in a concurrent manner. Piskiel teaches checking is performed in a serial manner (Element 800 is first ... published message; col. 16, lines 27 - 67). It would have been obvious to one of ordinary skill in the art to modify the system of Piskiel to have the checking performed in the serial manner because it will improve the performance of the system.

14. **As to claim 48**, Piskiel teaches receiving as part of a transaction a message in a queue (transaction processing application; col. 6, lines 29-46 and published message ... queue; col. 7, lines 45-64), wherein the queue is associated with at least one rule (rules based message distribution 204, rule bases, subscription rules; col. 7, line 45 - col. 8, line 67) and each rule at least specifies a condition (rule clause; col. 8, line 51 - col. 9, line 34) and specifies an action (a single published message instance ... perform a specific action; col. 9, lines 35-46), and the action specified by each rule is capable of being different for each rule (a single message instance may trigger several rules, each of which is defined to perform a specific action; col. 9, lines 35-65), for each rule checking if the message satisfied the condition specified by the checked rule (when the identified ... evaluate to TRUE; col. 9, lines 1-34), if the message does satisfy the condition specified by the checked rule then performing the action specified by the checked rule (the particular action ... to be performed; col. 9, 1-34).

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15. However, Piskiel does not teach the queue is associated with at least one trigger, wherein each trigger comprises a set of rules, the trigger grouping the set of rules, the set of rules comprises an ordered set of checked rules having an order independent of non-checked rules. Feridun teaches the queue is associated with at least one trigger (input queue, correlation rule; col. 8, line 15 – col. 9, line 57 and a correlation rule is implemented as a Java bean wrapped around a rule object; col. 11, lines 32-37) and each trigger grouping the at least one rule (a correlation rule is implemented as a Java bean wrapped around a rule object; col. 11, lines 32-37). Shaw teaches the rules associated with a queue are in ordered (Action priority is determined by the rule's order in the rule list; col. 6, lines 15-17).

16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Piskiel, Feridun and Shaw because it improves the flexible of the system by dynamically deployed into a distributed computing environment and the actions specified by the rules are not conflict with each other.

17. **As to claims 49-51**, see rejections of claims 12-14 above.

18. **As to claim 53**, Piskiel as modified teaches at least one of the set of rules grouped by the at least one trigger comprises a short circuit rule, and the action specified by the short circuit rule comprises stopping the checking of each non-checked rule of the at least one of the set of rules grouped by the at least one trigger (the rule clause is ignored for ... table entry; col. 8, lines 51-67).



19. **As to claim 54**, Piskiel as modified teaches at least one of the ordered set of checked rules grouped by the at least one trigger comprises a short circuit rule, and the action specified by the short circuit rule comprises stopping the checking of any rules in the at least one of the ordered set of checked rules subsequent in the order to the short circuit rule (the rule clause is ignored for ... table entry; col. 8, lines 51-67).

20. **As to claim 55**, Piskiel does not teach the ordered set of checked rules grouped by the trigger comprises a destructive rule, and the action specified by the destructive rule comprises removing the message from the queue. Feridun teaches the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue (consume the event; col. 12, lines 10-20).

21. Claims 15 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piskiel et al. (U.S. 5,893,911) in view of Feridun et al. (U.S. 6,336,139 B1) and Shaw et al. (U.S. 6,282,565 B1) further in view of Gehani et al. (Event Specification in an Active Object-Oriented Database).

22. **As to claim 15**, Piskiel as modified does not teach each trigger further comprises an enabled state and a disabled state, such that the condition of each of the at least one rule of and grouped by the trigger is checked for satisfaction by the message received in the queue only

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when the trigger is in the enabled state. Feridun teaches the trigger has an active and in-active state (col. 11, lines 38-65).

23. Gehani teaches the trigger has an enabled (for each trigger definition ... for storing the state; page 87, right column, second paragraph), and the condition of each of the at least one rule of the trigger is checked for satisfaction by the message received in the queue only when the trigger is in the enabled state (Triggers do not fire unless they are active; page 82, left column).

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Piskiel, Feridun and Gehani because it provides a method to keep track of the state of the trigger.

25. **As to claim 52**, see rejection of claim 15 above.

26. Claims 20-24 and 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piskiel et al. (U.S. 5,893,911) in view of Feridun et al. (U.S. 6,336,139 B1) further in view of Gehani et al. (Event Specification in an Active Object-Oriented Database).

27. **As to claim 20**, Piskiel teaches at least one queue, each queue capable of receiving a plurality of messages (a publishing application ... queue 212; col. 7, lines 45-64), a rule store of at least one rule (subscriber distribution element 220; col. 7, lines 45-63), the queue is associated with at least one rule (rules based message distribution 204, rule bases, subscription rules; col. 7,

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line 45 - col. 8, line 67) and each rule at least specifies a condition (rule clause; col. 8, line 51 - col. 9, line 34) and specifies an action (a single published message instance ... perform a specific action; col. 9, lines 35-46), and the action specified by each rule is capable of being different for each rule (a single message instance may trigger several rules, each of which is defined to perform a specific action; col. 9, lines 35-65), a trigger service upon receipt of a message in a queue (the rules based message distribution evaluation technique 204; col. 7, lines 45-63), checking whether the condition specified by each rule for satisfaction by the message (when the identified ... evaluate to TRUE; col. 9, lines 1-34), and the action specified by the rule is performed upon satisfaction by the message of the condition specified by the rule (the particular action ... to be performed; col. 9, 1-34).

28. However, Piskiel does not teach each trigger associated with a queue, each trigger having a switchable enabled/disabled state switched to one of an enabled state and a disabled state, and each trigger grouping a plurality of rules in the trigger, and check the message in the queue when the state of the trigger is in enabled state. Feridun teaches the queue is associated with at least one trigger (input queue, correlation rule; col. 8, line 15 – col. 9, line 57 and a correlation rule is implemented as a Java bean wrapped around a rule object; col. 11, lines 32-37) and each trigger grouping the at least one rule (a correlation rule is implemented as a Java bean wrapped around a rule object; col. 11, lines 32-37). Gehani teaches the trigger has an enabled state (for each trigger definition ... for storing the state; page 87, right column, second paragraph), and the condition of each of the at least one rule of the trigger is checked for satisfaction by the message received in

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the queue only when the trigger is in the enabled state (Triggers do not fire unless they are active; page 82, left column).

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Piskiel, Feridun and Gehani because it would improve the flexible of the system by dynamically deployed into a distributed computing environment, and provides a method to keep track of the state of the trigger.

30. **As to claim 21**, Piskiel as modified teaches the trigger store corresponds to a particular computer (a publishing application ... distributed element 220; col. 7, lines 45-63) and references each of the at least one trigger within a trigger database (the tables may be implemented utilizing relational database management system; col. 10, lines 55-65).

31. **As to claim 22**, Piskiel teaches the queue comprises data stored on a computer-readable medium (queue 212; col. 7, line 45 - col. 10, line 54).

32. **As to claim 23**, Piskiel as modified teaches each of the at least one trigger store comprises data stored on a computer-readable medium (the tables may be implemented utilizing relational database management system; col. 10, lines 55-65).

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33. **As to claim 24**, Piskiel teaches the trigger service comprises a computer program executed by a processor from a computer-readable medium (the rules based message distribution evaluation technique 204; col. 7, lines 45-63).

34. **As to claim 26**, Piskiel as modified teaches the trigger store of the at least one trigger comprises a trigger store of a plurality of ordered triggers (the tables may be implemented utilizing relational database management system; col. 10, lines 55-65 and rules, rule clauses; col. 9, line 44 – col. 10, line 25).

35. **As to claim 27**, Piskiel teaches (col. 9, lines 1-67) the trigger service is designed to perform the action associated with a rule by activating each of the module referenced by the rule (The action table ... file or database).

36. **As to claim 28**, Piskiel teaches at least one module, such that the at least one module referenced by the rule as activated by the trigger service are selected from the at least one module (logging or recording information about the transaction in a file or database, address of a desired target computing process, initiating execution of a new application, name of a process; col. 9, line 62 - col. 10, line 15 and The action table ... file or database; col. 9, lines 1-67).

37. **As to claim 29**, Piskiel teaches (col. 9, line 62 – col. 10, line 15) each module comprises one of a software component (logging or recording information about the transaction in a file or

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database, address of a desired target computing process) and an executable program file (initiating execution of a new application, name of a process).

38. **As to claim 30**, Piskiel as modified teaches the trigger service is further configured to at least activate each of the at least one module referenced by the rule such that the message is passed to the module (send a transaction message to a subscribing process/application program; col. 9, lines 35-65 and The action table ... file or database; col. 9, lines 1-67).

39. **As to claim 31**, Piskiel as modified teaches the at least one rule comprises a short-circuit rule, such that satisfaction by the message received in the queue of the condition specified by the rule causes checking for satisfaction of the condition of any non-checked rules of the at least one rule grouped by the trigger associated with the queue to stop (the rule clause is ignored for ... table entry; col. 8, lines 51-67).

40. **As to claim 32**, Piskiel does not teach the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue. Feridun teaches the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue (consume the event; col. 12, lines 10-20).

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41. **As to claim 33**, Piskiel teaches checking is performed in a serial manner (Element 800 is first ... published message; col. 16, lines 27 - 67).

42. **As to claim 34**, Piskiel does not teach checking is performed in a concurrent manner. Piskiel teaches checking is performed in a serial manner (Element 800 is first ... published message; col. 16, lines 27 - 67). It would have been obvious to one of ordinary skill in the art to modify the system of Piskiel to have the checking performed in the serial manner because it will improve the performance of the system.

43. **As to claim 35**, Piskiel teaches the system comprises at least one computer (system #1, system #2; col. 5, line 61 - col. 6, line 17).

44. Claims 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Piskiel et al. (U.S. 5,893,911) in view of Feridun et al. (U.S. 6,336,139 B1) and Gehani et al. (Event Specification in an Active Object-Oriented Database) further in view of Moore et al. (U.S. 5,630,127).

45. **As to claim 25**, Piskiel does not explicitly teach a trigger manager designed to provide for creating, editing and deleting triggers in a visual, non-programming manner. Moore teaches a trigger manager (the GRMS 108, the definition environment) designed to provide for creating, editing and deleting triggers in a visual, non-programming manner (rules can be created and modified; col. 7, line 60 – col. 8, line 19). It would have been obvious to one of ordinary skill in

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the art at the time the invention was made to combine the teaching of Piskiel, Feridun, Gehani and Moore because it would provide a method for a business professional, and not a software expert, can create and modified the triggers.

46. Claims 36-37 and 39-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piskiel et al. (U.S. 5,893,911) in view of Feridun et al. (U.S. 6,336,139 B1) further in view of Moore et al. (U.S. 5,630,127).

47. **As to claim 36**, Piskiel teaches at least one queue, each queue capable of receiving a plurality of messages (a publishing application ... queue 212; col. 7, lines 45-64), a rule store of at least one rule (subscriber distribution element 220; col. 7, lines 45-63), the queue is associated with at least one rule (rules based message distribution 204, rule bases, subscription rules; col. 7, line 45 - col. 8, line 67) and each rule at least specifies a condition (rule clause; col. 8, line 51 - col. 9, line 34) and specifies an action (a single published message instance ... perform a specific action; col. 9, lines 35-46), and the action specified by each rule is capable of being different for each rule (a single message instance may trigger several rules, each of which is defined to perform a specific action; col. 9, lines 35-65), a trigger service upon receipt of a message in a queue (the rules based message distribution evaluation technique 204; col. 7, lines 45-63), checking whether the condition specified by each rule for satisfaction by the message (when the identified ... evaluate to TRUE; col. 9, lines 1-34), and the action specified by the rule is performed upon satisfaction by the message of the condition specified by the rule (the particular action ... to be performed; col. 9, 1-34).



48. However, Piskiel does not teach each trigger associated with a queue, each trigger grouping at least one rule in the trigger, and a trigger manager configured to, at least, provide for creating, editing and deleting of triggers and rules grouped in triggers in a visual, non-programming manner. Feridun teaches the queue is associated with at least one trigger (input queue, correlation rule; col. 8, line 15 – col. 9, line 57 and a correlation rule is implemented as a Java bean wrapped around a rule object; col. 11, lines 32-37) and each trigger grouping the at least one rule (a correlation rule is implemented as a Java bean wrapped around a rule object; col. 11, lines 32-37). Moore teaches a trigger manager (the GRMS 108, the definition environment) designed to provide for creating, editing and deleting triggers in a visual, non-programming manner (rules can be created and modified; col. 7, line 60 – col. 8, line 19).

49. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Piskiel, Feridun and Moore because it would improve the flexible of the system by dynamically deployed into a distributed computing environment, and provide a method for a business professional, and not a software expert, can create and modified the triggers.

50. **As to claim 37**, Piskiel as modified teaches the trigger store corresponds to a particular computer (a publishing application ... distributed element 220; col. 7, lines 45-63) and references each of the at least one trigger within a trigger database (the tables may be implemented utilizing relational database management system; col. 10, lines 55-65).

51. **As to claim 39**, Piskiel as modified teaches the trigger store of the at least one trigger comprises a trigger store of a plurality of ordered triggers (the tables may be implemented utilizing relational database management system; col. 10, lines 55-65 and rules, rule clauses; col. 9, line 44 – col. 10, line 25).

52. **As to claim 40**, Piskiel teaches (col. 9, lines 1-67) the trigger service is designed to perform the action associated with a rule by activating each of the module referenced by the rule (The action table ... file or database).

53. **As to claim 41**, Piskiel teaches at least one module, such that the at least one module referenced by the rule as activated by the trigger service are selected from the at least one module (logging or recording information about the transaction in a file or database, address of a desired target computing process, initiating execution of a new application, name of a process; col. 9, line 62 - col. 10, line 15 and The action table ... file or database; col. 9, lines 1-67).

54. **As to claim 42**, Piskiel teaches (col. 9, line 62 – col. 10, line 15) each module comprises one of a software component (logging or recording information about the transaction in a file or database, address of a desired target computing process) and an executable program file (initiating execution of a new application, name of a process).

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55. **As to claim 43**, Piskiel as modified teaches the trigger service is further configured to at least activate each of the at least one module referenced by the rule such that the message is passed to the module (send a transaction message to a subscribing process/application program; col. 9, lines 35-65 and The action table ... file or database; col. 9, lines 1-67).

56. **As to claim 44**, Piskiel as modified teaches the at least one rule comprises a short-circuit rule, such that satisfaction by the message received in the queue of the condition specified by the rule causes checking for satisfaction of the condition of any non-checked rules of the at least one rule grouped by the trigger associated with the queue to stop (the rule clause is ignored for ... table entry; col. 8, lines 51-67).

57. **As to claim 45**, Piskiel does not teach the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue. Feridun teaches the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue (consume the event; col. 12, lines 10-20).

58. **As to claim 46**, Piskiel teaches checking is performed in a serial manner (Element 800 is first ... published message; col. 16, lines 27 - 67).

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59. **As to claim 47**, Piskiel does not teach checking is performed in a concurrent manner. Piskiel teaches checking is performed in a serial manner (Element 800 is first ... published message; col. 16, lines 27 - 67). It would have been obvious to one of ordinary skill in the art to modify the system of Piskiel to have the checking performed in the serial manner because it will improve the performance of the system.

### *Response to Arguments*

60. Applicant's arguments with respect to claims 1-37 and 39-55 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

61. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The examiner can normally be reached on Monday - Thursday, 9:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

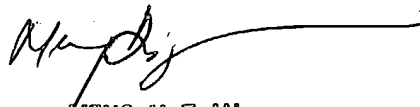
**Any response to this action should be mailed to:**

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